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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,832	08/19/2003	James Charles Bohling	A01408	5160
21898	7590	05/23/2005	EXAMINER	
ROHM AND HAAS COMPANY PATENT DEPARTMENT 100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			WEBB, GREGORY E	
			ART UNIT	PAPER NUMBER
			1751	

DATE MAILED: 05/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/643,832

Applicant(s)

BOHLING ET AL.

Examiner

Gregory E. Webb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 052804.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0528004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The following action will interpret terms, first based on the specification, then based on standard dictionary definitions.

In the instant case the following terms will be interpreted broadly based on the following definitions:

"resin"- a semisolid or solid complex amorphous mix of organic compounds. Resins can be of animal, vegetable or synthetic origin (Hawley's Chemical Dictionary, Twelfth Edition, 1993)

Thus the term resin encompasses a broad range of organic compounds including many polymers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent; published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama (US6250317).

Concerning the claimed intended use, Nakayama teaches the following:

The applied film to be used in the method of this invention is subject to

no particular restriction except for the requirement that the resin

forming the applied film contain a chemical structure or compound

represented by the chemical structure formula (1) mentioned above.

Concrete examples of the applied film include an applied film which is

formed by cross-linking a carbonyl group-containing resin with a

polyhydrazide compound or a polysemicarbazide compound and an applied film

which is formed by cross-linking a polyhydrazide-containing resin or a

polysemicarbazide-containing resin with a carbonyl group-containing

compound which have been reported in numerous articles of literature [for

example, The Chemistry of Amides, Part Two, published by Interscience

Publishers in 1970, Chapter 10, pp. 515-600 which is incorporated herein

by reference].(see col. 2, lines 17-31)

Concerning the claimed swelling solvent, Nakayama teaches the following:

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11. A method according to claim 2, wherein said organic solvent is selected from the group consisting of cyclohexanone, methyl isobutyl ketone, propylene glycol monopropyl ether, butyl acetate, benzyl alcohol, toluene and acetone.(see claim 11)

Concerning the claimed polarity modifier solvent, tetrahydrofuran and the dimethyl formamide, Nakayama teaches the following:

Any desired organic solvent can be used. Suitable organic solvents (c) include hydrocarbon type solvents such as pentane, hexane, heptane, octane, isooctane, nonane, decane, dodecane, cyclopentane, methyl cyclopentane, cyclohexane, methyl cyclohexane, pentene, hexene, octene, decene, benzene, toluene, xylene, ethyl benzene, cumene, mesitylene, butyl benzene, diethyl benzene, cyclohexene, petroleum ether, petroleum benzine, kerosene, and turpentine oil; halogenated hydrocarbon type solvents such as dichloromethane, chloroform, carbon tetrachloride, ethyl chloride, dichloroethane, trichloroethane, tetrachloroethane, hexachloroethane, trichloroethylene, propyl chloride, dichloropropane, butyl chloride, chlorobenzene, dichlorobenzene, trichlorobenzene, chlorotoluene, and trichlorotrifluoroethane; alcohol type solvents such as methanol, ethanol, propanol, butanol, pentanol, pentyl alcohol, hexanol, heptanol, octanol, allyl alcohol, benzyl alcohol, cyclohexanol, methyl cyclohexanol, fusel oil, ethane diol, propane diol, butane diol, and glycerine; ether type solvents such as dipropyl ether, dibutyl ether, dihexyl ether, ethylvinyl

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ether, butylvinyl ether, anisole, propylene oxide, epoxy butane, dioxane, tetrahydrofuran, tetrahydropyrane, dimethoxy ethane, 1,2-dibutoxy ethane, diethylene glycol dimethyl ether, diethylene glycol diethylene ether, acetal, ethylene glycol monomethyl ether, propylene glycol monomethyl ether, propylene glycol monoethyl ether, propylene glycol monopropyl ether, ethylene glycol monobutyl ether, propylene glycol monobutyl ether, 3-methyl-3-methoxy propane, diethylene glycol, and triethylene glycol; ketone type solvents such as acetone, methylethyl ketone, pentanone, hexanone, methylisobutyl ketone, heptanone, acetonyl acetone, dioxobutyl ketone, isophorone, cyclohexanone, methyl cyclohexanone, and acetophenone; ester type solvents such as methyl formate, ethyl formate, propyl formate, butyl formate, methyl acetate, ethyl acetate, propyl acetate, butyl acetate, pentyl acetate, 3-methoxybutyl acetate, cyclohexyl acetate, methyl propionate, benzyl acetate, butyl propionate, butyric esters, diethyl malonate, ethylene glycol monoacetate, ethylene glycol esters, diethylene glycol monoacetate, diethyl carbonate, ethylene carbonate, boric esters, and phosphoric esters; nitrogen compound type solvents such as nitromethane, nitropropane, nitrobenzene, acetonitrile, triethyl amine, diethyl amine, butyl amine, aniline, N,N-dimethyl aniline, pyridine, N-methyl formamide, N,N-dimethyl formamide, acetamide, N,N-dimethyl-acetamide, 2-pyrrolidone, N-methyl pyrrolidone, epsilon.-caprolactam, and morpholine; and sulfur type solvents such as

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carbon disulfide, dimethyl sulfoxide, and sulforan, for example.(see col. 4, lines 17-65)

Concerning the claimed pH, Nakayama teaches the following:

13. A method according to claim 1, wherein said acidic compound is an inorganic acid or an organic acid.(see claim 13)

Concerning the claimed acidic operating conditions, Nakayama teaches the following:

As concrete examples of the inorganic acid, hydrochloric acid, sulfuric acid, phosphoric acid, phosphorous acid, nitric acid, and anhydrides thereof, and esterification products of these acids may be cited.(see col. 3, lines 37-40).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Doyel (US6017862).

Concerning the claimed intended use, Doyel teaches the following:

Cleaning compositions and methods for cleaning resin and polymeric materials used in manufacture(see title)

Concerning the claimed swelling solvent and the tetrahydrofuran, Doyel teaches the following:

Preferably, the cyclic ether component of the mixture disclosed above contain effective amounts of the cyclic ether. The preferred materials for cyclic ethers are: 1,4 dioxane, 1,3 dioxolane tetrahydrofuran (THF), methyl THF, dimethyl THF and tetrahydropyran (THP), methyl THP, dimethyl THP ethylene oxide, propylene oxide, butylene oxide, amyl oxide, and isoamyl oxide. Among the most preferred is 1,3 dioxolane and tetrahydrofuran.(see cols. 8-9)

Concerning the claimed polarity modifier solvent, Doyel teaches the following:

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Preferably, the alcohol component of the mixture disclosed above contains an effective amount of the alcohol material of the formula $C_{x-1}H_{y-1}O_z$ where $x=1$ to 18, $y < 2x+2$ and $z=1$ or 2. Examples of these alcohols are methanol, ethanol, propanol, isopropanol, butanol, 2-butanol, tert butyl alcohol, 1-pentanol, 2-pentanol, 3-pentanol, methyl propanol, methyl butanol, trifluoroethanol, allyl alcohol, 1-hexanol, 2-hexanol, 3-hexanol, 2-ethyl hexanol, 1-octanol, 1-decanol, 1-dodecanol, cyclohexanol, cyclopentanol, benzyl alcohol, furfuryl alcohol, tetrahydrofurfuryl alcohol, bis-hydroxymethyl tetrahydrofuran, ethylene glycol, propylene glycol, and butylene glycol. They can be used either singly or in the form of a mixture of two or more of them. In the composition listed x can be a number 1 to 12, preferably 1 to 8, more preferably 1 to 6. Among the most preferred are methanol, ethanol, isopropanol, tetrahydrofurfuryl alcohol and benzyl alcohol. (see col. 8, lines 8-25)

Concerning the claimed rinsing step, Doyel teaches the following:

It may, in most instances, be necessary or desirable to rinse the cleaning composition from the part or article with water or with one of the solvents listed above, or with any combination of water and solvents. One skilled in the art can devise numerous combinations of cleaning compositions and rinsing solutions from this disclosure and the known properties of the chemicals used. In addition, one skilled in the art can devise simple tests to determine the appropriate rinsing conditions for a

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cleaning composition selected. It is common in the art to select a rinsing solution that will effectively remove all of the cleaning agent or composition and allow the rinsing solution to dry from the part either through the use of moving air, heated air and/or natural evaporation.

Compounds that affect the odor of a surface being cleaned, that inhibit the corrosion of the surface, that act as a surfactant can also be added to the cleaning compositions or rinsing solutions and used in the cleaning methods.(see col. 7, lines 33-50)

Concerning the claimed acidic operating conditions, Doyel teaches the following:

Chemical cleaning methods for removal of undesired or overflowed polymer falls into the use of strong inorganic acids or alkali. Most commonly used in the art are strong inorganic acids, such as sulfuric, nitric, or hydrochloric acid. The oxidizing action of these acids is most effective at elevated temperatures and they are, therefore, used mainly at temperatures in excess of 140.degree. F. (60.degree. C.) in order to remove most of the undesired polymers. The drawback of the use of these acids is that they are hazardous materials, and can be very aggressive on most molds and equipment, thereby reducing the useful life.(see col. 2, lines 54-64).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US5399464).

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Concerning the claimed intended use, claimed pH and the claimed acidic operating conditions,

Lee teaches the following:

Positive photoresists are based on the use of a novolac matrix resin and, typically, a diazoquinone photoactive compound or sensitizer. Novolac resins are soluble in common organic solvents and are also soluble in aqueous base solutions by virtue of the acidic characteristic of their phenolic functionality. The diazoquinone derivatives are soluble in common organic solvents but are insoluble in aqueous bases. Upon exposure to light, these substances undergo a series of reactions that culminate in the formation of an indene carboxylic acid. The photoproduct, unlike its precursor, is extremely soluble in aqueous bases by virtue of its carboxylic acid functionality. These substances will react with transition and non-transition metals, such as phosphorous, arsenic, and antimony to create a vast chemistry of organometallic compounds. During ion implantation, the photoresist is exposed to high energy bombardment, which is an ideal environment for the formation of the organometallic compounds. These organometallic compounds have different solubility properties, which make them difficult to solubilize in common solvents, and they are also impervious to strong oxidizing agents, such as sulfuric acid. The present process preferably uses a combination of a high temperature prebake, strongly alkaline solvents, a diethylene triamine and ultrasonic vibration to remove the metallized film by a lift off process. The high temperature

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prebake of the organometallic film ensures that the formation of the organometallic film is completed.(see col. 3, lines 25-60)

Concerning the claimed swelling solvent and the dimethyl formamide, Lee teaches the following:

Suitable specific examples of polar organic solvents for the composition and process include N-methyl pyrrolidone, dimethyl formamide, butyrolactone, glycol ether, glycol ether acetal, and the like. The preferred polar organic solvents are N-methyl pyrrolidone and dimethyl formamide. Suitable specific examples of nonpolar organic solvents include aliphatic and aromatic hydrocarbon and chlorinated hydrocarbon solvents, such as benzene, alkylbenzenes, mineral spirits, and the like. The preferred nonpolar organic solvents are aromatic and chlorinated solvents. The solvents may be used singly or as mixtures. High boiling point solvents should be used, due to the elevated temperatures employed in the process.(see col. 4, lines 11-25)

Concerning the claimed polarity modifier solvent, Lee teaches the following:

Stripping compositions utilizing various amine compounds for the removal of positive photoresist from semiconductor wafers having insulating and/or conductive patterns defined on their surfaces using the photoresist during the manufacture of integrated circuits are known in the art. For example, Posistrip 830, available from EKC Technology, Hayward, Calif. 94540, is the most aggressive commercially available stripper for positive

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photoresist. The principal active ingredient of Posistrip 830 is 2,(-2 aminoethoxy)ethanol. Another material that is used for this purpose is N-methyl pyrrolidone.(see col. 1, lines 24-35)

Concerning the claimed rinsing step, Lee teaches the following:

The diethylene triamine solutions as in Example 1 were used to strip photoresist coated wafers prepared as in Example 1, including the prebaking step, but without application of ultrasonic energy, using the following procedure. A quantity of 600 ml. of the diethylene triamine solution was placed in a beaker and heated to 110.degree. C. The wafers were put in the stripping solution five minutes, transferred to a deionized water pump rinser or spray rinser for 5 minutes and visually inspected for photoresist residue. The results showed that the diethylens triamine solutions successfully stripped the photoresists at ion implanted dosage levels of 1×10^{10} ions/cm.² by dissolving the photoresists and produced 75% photoresist removal at the higher ion implantation dose level.(see example 5).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Ward, Jr. (US4401748).

Concerning the claimed intended use, Ward, Jr. teaches the following:

The stripping compositions of this invention are effective in stripping a wide and varied range of positive photoresists. Most positive photoresists

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consist of an ortho naphthoquinone diazide sulfonic acid ester or amide sensitizer or photoactive component, with novolak, resole, polyacrylamide or acrylic copolymer type binders or resins. Such positive photoresists are well known in the art. Such resists and sensitizers are described, for example, in U.S. Pat. Nos. 3,046,118; 3,046,121; 3,106,465; 3,201,239; 3,538,137; 3,666,473; 3,934,057; 3,984,582 and 4,007,047. As examples of such positive photoresist compositions for which the stripping composition of this invention may be used there may be mentioned Eastman Kodak Company photoresist Kodak 809; J. T. Baker Chemical Company photoresist PR-20; Philip A. Hunt Chemical Corp. Waycoat HPR 104, HPR 106, HPR 204 and HPR 206 photoresists; Shipley Company Inc. photoresist AZ-1350, AZ-1350B, AZ-1350H, AZ-1350J, AZ-1370, AZ-1450B, AZ-1450J, AZ-1470, AZ-2400 and AZ-111; Polychrome Corporation photoresists PC-129, PC-129SF and PC-138; Fujitsu Chemicals Industrial Co. photoresist FPR-200; and Tokyo Ohka Kogyo Co. Ltd. photoresist OFPR-800.(see cols. 3-4)

Concerning the claimed swelling solvent and the tetrahydrofuran, Ward, Jr. teaches the following:

6. A composition of claim 2 comprising about 70% 2-pyrrolidinone and 30% tetrahydrofuran.(see claim 6)

Concerning the claimed polarity modifier solvent and the claimed acidic operating conditions, Ward, Jr. teaches the following:

Heretofore the resist materials have been removed by stripping agents

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containing one or more of the following: halogenated hydrocarbons, for example, methylene chloride or tetrachloroethylene; amines and their derivatives such as dimethylformamide, N-methyl-2-pyrrolidone, diethanolamine and triethanolamine; glycol ethers such as ethylene glycol monoethyl ether, 2-butoxyethanol, 2-(2-butoxyethoxy)ethanol, and the acetates thereof; ketones such as methyl ethyl ketone, acetone, methyl isobutyl ketone and cyclohexanone, as well as such materials as dioxane, sodium phenolate, isopropyl alcohol, sulfuric acid/nitric acid mixtures, persulfuric acid mixtures such as Caro's acid and sulfuric acid/ammonium persulfate, and mixtures of caustic and phenol derivatives as well as various other materials.(see col. 1, lines 29-54)

Concerning the claimed rinsing step, Ward, Jr. teaches the following:

Wafer substrates were coated with positive photoresist materials according to art recognized procedures and post-baked at about 150.degree. C. for a period of about 45 minutes to one hour. Stripping baths were maintained at constant temperature with water baths and the post-baked coated wafers were immersed into 600 ml beakers containing the constant temperature stripping compositions with intermittent agitation for the specified times after which the wafer is removed, rinsed in running deionized water and spin dried at 3000 rpm. Strippability was judged by inspection of the wafers to ascertain if any residue was present.(see cols. 4-5)

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Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bantu (US5268260).

Concerning the claimed swelling solvent and the claimed polarity modifier solvent, Bantu teaches the following:

Alternatively, the stripper may include also, in amounts of about 0.1 up to about 10% by weight, additive selected from the group consisting of methanol, ethanol, isopropyl alcohol, propylene glycol monomethyl acetate, ethylene glycol monomethyl ether, formamide, nitromethane, propylene oxide, methyl ethyl ketone, acetone and water.(see col. 6, lines 43-54)

Concerning the claimed pH, Bantu teaches the following:

Where aqueous developing of the photoresist is desirable the binder should contain sufficient acidic or other functionalities to render the composition processable in the aqueous developer. Suitable aqueous-processable binders include those described in U.S. Pat. No. 3,458,311 and in U.S. Pat. No. 4,273,856. Polymers derived from an aminoalkyl acrylate or methacrylate, acidic film-forming comonomer and an alkyl or hydroxyalkyl acrylate such as those described in U.S. Pat. No. 4,293,635 can be included.(see col. 3, lines 54-64)

Concerning the tetrahydrofuran, Bantu teaches the following:

In the preparation of these formulations generally inert solvents are employed which are volatile at ordinary pressures. Examples include alcohols and ether alcohols, esters, aromatics, ketones, chlorinated

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hydrocarbons, aliphatic hydrocarbons, miscellaneous solvents such as dimethylsulfoxide, pyridine, tetrahydrofuran, dioxane, dicyanocyclobutane and 1-methyl-2-oxo-hexamethyleneimine, and mixtures of these solvents in various proportions as may be required to attain solutions. Antiblocking agents to prevent the coatings from adhering to the supporting films can also be included.(see col. 4, lines 12-24)

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Bantu (US6127097).

Concerning the claimed swelling solvent and the claimed polarity modifier solvent, Bantu teaches the following:

Alternatively, the stripper may include also, in amounts of about 0.1 up to about 10% by weight, additive selected from the group consisting of methanol, ethanol, isopropyl alcohol, propylene glycol monomethyl acetate, ethylene glycol monomethyl ether, formamide, nitromethane, propylene oxide, methyl ethyl ketone, acetone and water.(see col. 6, lines 31-36)

Concerning the claimed rinsing step, Bantu teaches the following:

2. The method recited in claim 1 wherein the stripping step is followed by a rinsing step in water at a water rinse pressure between about 15 to about 60 psi, in a rinse temperature between about 20 to about 60 degrees C. and a rinse time between about 5 to about 20 minutes.(see claim 2)

Concerning the tetrahydrofuran, Bantu teaches the following:

In the preparation of these formulations generally inert solvents are

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employed which are volatile at ordinary pressures. Examples include alcohols and ether alcohols, esters, aromatics, ketones, chlorinated hydrocarbons, aliphatic hydrocarbons, miscellaneous solvents such as dimethylsulfoxide, pyridine, tetrahydrofuran, dioxane, dicyanocyclobutane and 1-methyl-2-oxo-hexamethyleneimine, and mixtures of these solvents in various proportions as may be required to attain solutions. Antiblocking agents to prevent the coatings from adhering to the supporting films can also be included. (see col. 4, lines 12-24).

Allowable Subject Matter

1. No claims were found to be allowable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory E. Webb whose telephone number is 571-272-1325. The examiner can normally be reached on 9:00-17:30 (m-f).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory E. Webb
Primary Examiner
Art Unit 1751

gew